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ABSTRACT

A series of pilot projects for small schools was developed by the Manitoba Department of Education to test new concepts that, if successful, could be replicated by other small schools. This report contains a summary of projects involving: (1) computer managed physics instruction; (2) training teachers to use computers effectively; (3) providing computer programs and training (summary written in French); (4) career education programs; (5) remedial and enrichment programs in small schools; (6) inter-school visitations as a form of inservice; (7) linking up schools through computers and phone modems; (8) a teacher's manual for introducing microcomputers; (9) programming for multi-handicapped students; (10) multi-media resource centre in small school; (11) inter-disciplinary teaching; (12) community school support advisory councils; (13) visual arts programs; and (14) enrichment for pre-school children. Names and addresses of contact people for each project are included along with information on the projects' goals, outlines, observations, and costs. (JD)

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REPORT
SMALL SCHOOLS
PILOT PROJECTS
1982 - 1983

SP025 906

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REPORT ON SMALL SCHOOLS PILOT PROJECTS

During the 1982-83 school year, the Department of Education sponsored a series of pilot projects under the Small Schools Support Program. The purpose of these projects was to test new concepts that, if successful, could be replicated by other small schools to further improve the quality of education they were delivering. A number of the projects involved concepts, that if successful, could be used by any school regardless of size.

This report contains a summary of each of these projects, along with the names and addresses of contact people for each one.

The following list indicates the projects described.

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For further information on the Small Schools Support Program, or general information on any one of these pilot projects, please feel free to contact:

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Department of Education
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Brandon, Manitoba R7A 6C2
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or Toll Free 1-800-852-2700

OR

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Coordinator
Small Schools Support Program
(Schools Where French is the Language of Instruction)
Department of Education
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DEVELOPING COMPUTER MANAGED INSTRUCTION FOR PHYSICS 200

(Correspondence School and Faculty of Education, University of Manitoba)

Goal of the Project

The goal of the project was to test the feasibility of offering an academic program through computer managed instruction. (If successful, this method of program delivery would allow small collegiates to offer some low enrolment options by this method, rather than by the traditional correspondence course approach).

Outline of the Project

1. The following conditions were set out at the beginning of the project:

   (a) The course selected should be one that would lend itself fairly readily to a computer managed instruction approach.

   (b) The course selected should be one where there is often a low enrolment in a small school.

   (c) Once developed, the course should be offered through the Correspondence School, under the same conditions as any other correspondence course.

2. The project was coordinated by Dr. Harvey Williams of the University of Manitoba. He worked in consultation with the Correspondence School, the Science consultants for the Department of Education, individual Physics teachers and the Coordinators of Small Schools.

3. The Physics 200 course was divided into appropriate teaching units.

4. Each teaching unit was then developed in such a manner that it could be taught through the process of computer managed instruction. Each unit consisted of the following parts:

   (a) Explanation of theory.
   (b) Follow-up reading assignments.
   (c) Written assignments (to be corrected by the Correspondence School).
   (d) Experiments.
   (e) Assessment of students' level of achievement (done by the computer).
   (f) Tutorials (only for those students who need extra help on a certain section).
   (g) Final test (to be corrected by the Correspondence School).

5. The course will be pilot tested during the 1983-84 school year in the following centres -

   Hartney Collegiate
   Treherne Collegiate
   Elton Collegiate
   Grant Park Collegiate

6. During the pilot testing, several meetings will be held with the pilot teachers. Based on their experiences, modifications will be made to the course.

7. If the project is successful, it is planned to make the course available to schools through the Correspondence Branch of the Department of Education. At the present time, it is hoped that it would be ready for general distribution by September, 1984.

Observations

Because the course has not been piloted yet, it is too early to comment on how successful this approach will be. At the present time, it is hoped that it will prove to be an improvement over the traditional method of offering Physics 200 as a correspondence course.

Costs

Once the program has been piloted and revised, the program will be made available to students through the Correspondence School. The cost to students will be the regular cost of taking a correspondence course, plus a small charge for the diskettes.

Contact People

For further information, contact:

Principal
Correspondence School
Manitoba Department
of Education
528 St. James Street
Winnipeg, Manitoba
R3G 3J4
Telephone: 944-7396

Dr. Harvey Williams
Faculty of Education
University of Manitoba
Winnipeg, Manitoba
R3T 2N2

TRAINING TEACHERS TO USE COMPUTERS EFFECTIVELY

(White Horse Plains School Division #20)

Goals of the Project

The three goals of the project were:

1. To train teachers in the division on how to use the computer more effectively in the classroom.

2. To have these teachers act as resource people in their own school.

3. To have these teachers conduct computer familiarization sessions with parents from their school.

(This training was particularly relevant for those small schools which do not have a staff member with a background in micro-computers.

Outline of the Project

1. Over the course of the year, five different training sessions were held. Each session had three instructors and a class of twelve teachers. This provided a good opportunity for individual assistance, as well as ample hands-on experience. The sixty teachers who were trained in this manner represented 75% of the divisional staff.

2. The course, which involved fifteen hours of instruction, consisted of four parts:
   - (a) Introduction to the Computer
   - (b) Basic Programming
   - (c) Development of Simple Programs
   - (d) Effective Use of Software in the Classroom

3. At the end of these sessions, a number of teachers expressed an interest in further training. As a result, a more advanced course was offered. It involved an additional fifteen hours of training, and was taken by twenty teachers.

4. A number of computer familiarization sessions were held for parents by teachers who had gone through this program. These sessions were held in town schools, as well as on Hutterite colonies.

5. One of the teachers who had taken both training sessions operated a summer computer camp for students in the division.

Observations

1. One of the greatest strengths discovered during the evaluation of the project was the quality of instruction given. Those areas pointed out as particular strengths were:

   (a) The quality of the instructors.

   (b) The opportunity for individual assistance.

   (c) The opportunity for hands-on experience.

2. Because all of the schools in the division were equipped with computers, teachers had a good opportunity to apply what they had learned in their own classroom.

3. A number of positive spin-offs have occurred in the division as a result of the project. For example:

   (a) Teachers are making much more effective use of micro-computers in their classrooms. For example, some teachers are now developing their own programs to meet specific needs of their students. In addition, computers are being used more effectively for computer assisted learning.

   (b) Some of the teachers who took the sessions are now taking more advanced training through summer school and evening courses.

   (c) Parents are more aware of the potential uses and limitations of computers. It is interesting to note that some parents have expressed a desire to take more training in this area.

Costs

The cost for each training session was $1,200 (about $100 per teacher trained). The main cost was for the instructors (salary, meals and travelling expenses). The cost of the project was shared between the White Horse Plains School Division and the Small Schools Support Program.

Contact People

For further information contact:

Mr. Norbert Delaquis
Superintendent
White Horse Plains S.D. #20
P.O. Box 147
Elie, Manitoba ROH OHO
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Mr. Mark Singleton
Main Instructor
Tiger Hills S.D. #29
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Glenboro, Manitoba ROK OXO
Telephone: 827-2881

LE DEVELOPPEMENT DES LOGICIELS ET L'APPRENTISSAGE DES PROGRAMMES

(Six Commissions Scolaires du Manitoba ont participé au projet)

Buts du projet

Les buts du projet:

1. Développer des logiciels en français.
2. Offrir des ateliers d'apprentissage aux professeurs de français afin de favoriser l'utilisation des micro-ordinateurs dans les classes.

Les grandes lignes du projet

Le projet a été fait en cooperation avec le Bureau de l'Education française. The Small Schools Support Program et les commissions scolaires suivantes:

Norwood
Seine River
Red River
White Horse Plains
Mountain
Turtle River

A. Atelier d'apprentissage

1. Les ateliers d'apprentissage ont été développé par le Collège St. Boniface en collaboration avec le Bureau de l'Education française. L'enseignement fut donné par les membres du Collège et du Bureau.
2. Le programme comprenait 45 heures d'enseignement. Deux points importants ont été discutés.
   (a) l'utilisation adéquate des ordinateurs dans les classes.
   (b) le développement de nouveaux modules en français pour l'utilisation des ordinateurs.
3. Quatre-vingt cinq professeurs ont participé au programme.

B. Le développement des modules

1. Des comités ont été d'abord formés en regroupant les matières suivantes:

Français	M-6
Français	7-12
Mathématique	7-12

2. La priorité du projet était de creér de nouveaux modules selon les guides pedagogiques écrits par des professeurs Manitobains. Ces modules ont été fait à tous les niveaux de M-12 selon les matières suivantes:

Français
Mathématique
Sciences Humaines
Sciences Naturelles
autres thèmes généraux

3. Les renseignements suivants seront utiles à tous ceux qui ont interêt à travailler avec ces modules.

(a) Actuellement 110 modules ont été fait. 90 d'entres eux ont été fait par les professuers Manitobains.

(b) Prèsque tous les modules peuvent être utilisés sur les principaux modèles de micro-ordinatuers que l'on retrouve au Manitoba - Pet, Apple et Radio Shack.

(c) On peut obtenir ces modules sur bandes ou sur disquettes. Cependant le Bureau encourage autant que possible l'utilisation des disquettes.

(d) La duree des modules est d'environ trente minutes. Toutes fois les modules pour les étudiants des niveaux inferieurs son plus courts.

(e) On peut maintenant se procurer les disquettes et les bandes en communiquant avec:

Dr. René Beauchamp
Bureau de l'Education française
Department of Education
Room 508 - 1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3

Ils seront bientôt disponibles au Manitoba Textbook Bureau.

Observations

1. Le projet fut realisé pour répondre à deux besoins importants des professeurs de française.

   (a) Le besoin de connaitre les différentes applications pédagogiques de l'ordinateur dans le système de l'éducation.

   (b) Le manque de modules écris en français.

2. Le projet semble répondre à ces deux besoins et continuera l'an prochain.

Frais

Pour le moment les modules sont disponibles gratiutement au Bureau de l'Education française.

Pour de plus amples informations communiquez avec:

Dr. René Beauchamp
Bureau de l'Education française
Department of Education
Room 509 - 1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3
Telephone: 944-6026

DEVELOPING COMPUTER SOFTWARE AND TRAINING PROGRAMS (FRENCH)

(Six Manitoba School Divisions)

Goals of the Project

The goals of the project were:

1. To develop modules of computer software written in French.
2. To provide training programs for French teachers on effective use of micro-computers in the classroom.

Outline of the Project

The project was a joint undertaking between le Bureau de l'Education française, the Small Schools Support Program and the following school divisions:

Norwood
Seine River
Red River
White Horse Plains
Mountain
Turtle River

A. Training Program

1. The training program was developed by le Collège St. Boniface, in consultation with le Bureau de l'Education française. Instruction was given by members from both le Collège and le Bureau.
2. The program involved 45 hours of instruction. There were two main areas of emphasis:
   (a) Using computers effectively in the classroom.
   (b) Writing programs for the computer.
3. A total of 85 teachers took the program.

B. Development of Computer Software

1. The project began by establishing working committees in the following areas:

Français	K - 6
Français	7 - 12
Mathematics	K - 12

2. The major emphasis was on producing original software written by Manitoba teachers to fit with the Manitoba curriculum. Modules were written for all grade levels from K - 12, in the following subject areas:

Français

Mathematics

Social Studies

Science

General Topics

3. The following information will be of interest to any individuals who might be interested in using this software.

(a) At the present time, about 110 modules have been produced. Ninety of these modules were written by Manitoba teachers.

(b) The software is available for use on the three main types of micro-computers used in Manitoba - PET, Apple and Radio Shack. However, not all modules are available for all three types.

(c) Modules are available either on diskette or tape. However, le Bureau is encouraging use of the diskettes whenever possible.

(d) The average program is about 30 minutes long. However, this varies. As a rule, programs for students in lower grades are not as long.

(e) At the present time, diskettes and tapes are available from:

Dr. Rene Beauchamp
Bureau de l'Education française
Department of Education
Room 509 - 1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3

At a later date, they will probably be made available through the Manitoba Textbook Bureau.

Observations

1. The project was set up to respond to two basic needs of French teachers:

   (a) The need for training relative to computers in education.

   (b) The lack of appropriate computer software written in French.

2. The project appears to have made a very successful start in responding to these two issues, and will continue next year.

Costs

1. At the present time, the computer software is available from le Bureau de l'Education française free of charge.

Contact Person

For further information, contact:

Dr. Rene Beauchamp
Bureau de l'Education française
Department of Education
Room 509 - 1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3
Telephone: 944-6026

IMPROVING THE DELIVERY OF CAREER EDUCATION PROGRAMS

(Rolling River School Division #39)

Goals of the Project

The basic goals of the project were:

1. To examine the feasibility of delivering career education to small collegiates by means of a mobile career education centre.

2. To examine the feasibility of having a mobile centre shared between three small collegiates within the same division.

3. To examine the feasibility of having the mobile centre operated by a trained teacher aide.

4. To examine the merits of a number of software programs being used in career education.

Outline of the Project

1. The project began by establishing a steering committee. This committee was made up of representatives of the school board, the central office staff, the local principals' association and classroom teachers.

2. The committee began by investigating career education programs operating in a number of centres. Those examined were:

   Canada Manpower
   Career Education Factory (Calgary)
   Tuxedo-Shaftsbury Collegiate
   Windsor Park Collegiate
   Goose Lake Collegiate (Roblin)
   Treherne Collegiate

3. The committee investigated and evaluated a number of career education materials currently available in the province.

Observations

Based on the results of their investigations and evaluations, the committee came up with a number of conclusions about delivering career education programs in their division.

1. The concept of a totally mobile career education centre for this division was not deemed to be appropriate. This is because a centre which moves from one school to another often cannot provide the students with information when they most need it. An appropriate alternative seems to be a permanent centre within each school, with some of the more expensive materials shared between schools.
2. Although sharing of more expensive materials is a good idea, these materials should not be shared by more than two schools.
3. The concept of delivering career education by means of a trained teacher aide who moves from school to school was not deemed to be appropriate for this division. The committee felt that it is important to assign the responsibility for career education to one of the teaching staff within each school. Although that staff member may draw on a number of back-up human and material resources, the overall responsibility for the program should remain with a teacher within each school.
4. Appropriate inservice and training must be provided for the staff member who is assigned responsibility for the career education program in the school.
5. The CHOICES package is a valuable resource for a career education program but is only part of a total program. However, if the CHOICES program is used, students need to be properly trained on how to use it. They also need sufficient time and assistance in interpreting the feedback they get.
6. When using the CHOICES program, it is much more effective to use a computer with a 64K memory than a 32K memory.
7. A career education centre needs to be furnished with a variety of print and non-print materials. It needs to be located in an area of the school where students have access to it on an ongoing basis.

Costs

The cost for adequately furnishing a career education centre in a small collegiate would vary, depending upon -

(a) How much material is presently in the centre.
(b) How much of an individual teacher's time is designated for career education.

Contact Person

For further information, contact:

Mr. Max Schatz, Superintendent
Rolling River School Division #39
P.O. Box 1170
Minnedosa, Manitoba R0J 1E0
Telephone: 867-2754

PROVIDING REMEDIAL AND ENRICHMENT PROGRAMS IN A SMALL SCHOOL

(Elgin School - Souris Valley School Division #42)

Goals of the Project

The goals of the project were:

1. To develop and equip a centre for providing remedial and enrichment programs for a small school.

2. To train a teacher aide to supervise the centre.

Outline of the Project

1. The centre was set up in the multi-purpose room. This room had become available due to declining enrolment in the school. Very few changes had to be made to the room in order to accommodate the centre.

2. Early in the school year, a number of appropriate teaching materials were ordered for the centre. The main purchases were:

   (a) A micro-computer.

   (b) A printer for the micro-computer (for writing exercises).

   (c) Appropriate computer software.

   (d) Learning kits for both remedial and enrichment activities.

   (e) Appropriate print and non-print materials.

3. A half-time teacher aide was hired for the centre. The job description for this position made it very clear that this person was to act as a resource to the program, and was not to take on the functions of a teacher. In the main, the duties of the teacher aide were:

   (a) To supervise the centre.

   (b) To assist staff and students in finding the appropriate resource materials.

   (c) To carry out specific assignments under the direction of the teachers in the school.

   An appropriate training program was set up for the teacher aide before she undertook her duties in the centre. This program was set up by the Coordinator of Special Education for the division.

4. In addition to the teacher aide hired for the resource centre, the school continued to receive services from the Coordinator of Special Education and an itinerant resource teacher.

Observations

1. The aide kept a close log of the kinds of activities and assistance being provided through the centre. From this, it is evident that:

   (a) There was a close balance between the services which were of a remedial nature, and those which were of an enrichment nature. The use of the centre for both remedial and enrichment activities was advantageous since it did not receive the stigma that often comes from having a centre used only for remedial purposes. Indeed, it tended to become a place that offered additional learning opportunities for all students.

   (b) Almost all students in the school were receiving services from the centre, rather than only those students who were very weak academically or those who were very strong.

2. The teacher aide who was hired for this program had already been working half-time in the school with a special needs student. This was a real advantage, in that it allowed her greater flexibility with her timetable.

3. Finding appropriate software for the computer was not as difficult as might have been anticipated. Indeed, much of the software was already available from the division office, or from other schools in the division.

4. The staff of the school have been very satisfied with the project. It was interesting to note that the school will be using a good portion of its small schools grant to continue the program during the 1983-84 school year.

Costs

The overall cost of the project was $7,500. Although the costs for the teacher aide will be ongoing, the material resources purchased represent a one-time investment. The costs for the material resources needed to set up the centre were:

Micro-computer	$2,000
Printer	1,000
Computer Software	500
Print and Non-Print Materials	1,000

The project was cost-shared between the Small Schools Support Program and the division.

Contact People

For further information, contact:

Mr. Bill Schaffer
Superintendent
Souris Valley S.D. #42
P.O. Box 878
Souris, Manitoba
ROK 2CO
Telephone: 483-2128

Mr. Peter Hiebert
Principal
Elgin School
P.O. Box 150
Elgin, Manitoba
ROK 0TO
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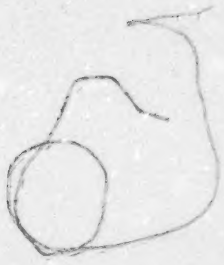

USING INTER-SCHOOL VISITATIONS AS A FORM OF INSERVICE

(Turtle Mountain School Division #44)

Goal of the Project

The goal of the project was to set up a program of inter-school visitations among teachers in small schools, with a view to using this as a form of inservice and professional development.

Outline of the Project

1. The project was discussed with the local Manitoba Teachers' Society. It was agreed that:

   (a) All visits would be planned in conjunction with the local M.T.S.

   (b) The local M.T.S. would cost share in the project by paying substitute teacher costs.

2. All principals and staffs in the division were notified of the project.

3. Superintendents in surrounding divisions were invited to participate, either by receiving teachers from Turtle Mountain School Division, or sending some of their teachers into the division.

4. To date, ten inter-visitations have taken place under this program. All of these have involved local teachers going out of the division.

5. Because the amount of money allotted for the project has not been used up, the project will continue during the 1983-84 school year. At that time, further attempts will be made to have teachers from outside come into the division.

Observations

1. Those teachers who have participated in the program have found it to be a valuable learning experience. The feeling is that it should not replace the present form of teacher inservice and professional development, but should be available as an alternative.

Costs

The basic costs for each visit were:

(a) Substitute teacher fees.

(b) The expense allowance paid to the teacher going to another school.

Because the local M.T.S. cost shared in the project, it was not expensive to operate.

Contact Person

For further information, contact:

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Turtle Mountain School Division #44
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Killarney, Manitoba
ROK 1GO
Telephone: 523-8286

LINKING UP SCHOOLS THROUGH COMPUTERS AND PHONE MODEMS

(Tiger Hills School Division #29)

Goals of the Project

The goals of the project were:

1. To provide inter-computer communication between five schools within the division. The main use of this would be:

   (a) To give each school access to the master file of all currently existing computer programs within the division.

   (b) To allow on-screen and hardcopy (printer) communication between schools.

   (c) To increase the course options at the junior high/senior high level by using the modems to allow on-screen instruction, and the sending and returning of student assignments and tests.

2. To allow schools to communicate with other phone access computers throughout North America. The main uses of this would be to permit access to computer data banks and educational programs from across North America (such as the Source).

3. To encourage the community to use this system to gain relevant information from a variety of data banks.

Outline of the Project

1. Five schools agreed to participate in the project: Baldur (K-12), Glenboro (K-12), Holland(K-8), Pilot Mound (K-12) and Treherne (9-12).

2. The equipment necessary to link up these schools was purchased. This included:

   (a) A CAT modem in each school.
   (b) A TNW 2000 Interface System in each school.
   (c) Disc drives in those schools which did not have them.

   (NOTE: There was considerable delay in providing some of the hardware. This apparently stemmed from red tape relative to getting some of the materials across the Canada-U.S.A. border).

3. The equipment was installed in each of the schools. In addition, separate telephone business lines were installed in each school.

4. Divisional staff were trained on how to use the equipment. In turn, they trained the staff members in their school.

Observations

(NOTE: The goals set out for the project were too extensive to be carried out in a one-year project. As a result, the major emphasis during the 1982-83 school year was placed on providing a communication system between schools and on communication with data banks throughout North America. The division will look at ways of meeting the other major goals in the future).

1. The goal of giving each school access to the division's master file of programs (over 2,000 programs) was achieved. The following benefits resulted from this:

   (a) It allowed programs to be transferred between schools without the risk of them being damaged or lost.

   (b) It avoided time delays.

   The only concern expressed was that the transfer of programs from one computer to another was somewhat slower than had been expected. The division is hoping to solve this problem by using a 1200 baud rather than a 300 baud.

2. The goal of allowing for on-screen and hard copy communication between schools was achieved. The system allowed for immediate two-way written communication between schools.

3. To date, not much has happened relative to the goal of using the system to increase course options at the junior high/senior high level by providing on-screen instruction. This part of the project will receive more attention in the future.

4. The goal of allowing schools to connect with data banks and programs throughout North America centered mainly on the use of the Source (a vast information utility in Virginia, U.S.A.). Although the use of data banks and programs from across the continent has some potential, some problems were experienced with using the Source. The major concerns expressed were:

   (a) There were some problems with making initial contact with the data banks, (they were not user friendly).

   (b) It was limiting in scope, (i.e., some of the programs described simply gave biographical lists, while some programs listed were no longer available).

   (c) It was difficult to break out of, (i.e., the program continued running after the user had all the information wanted).

   (d) There was some concern that getting information in this manner could become very expensive.

   In spite of these concerns, during the 1983-84 school year, a new attempt will be made to make better use of this information bank.

   At this point, the division is considering subscribing to more appropriate and more user-friendly computer information services and banks.

5. To date, not much work has been done on involving the community in using the facilities. More effort will be made in this area once the division has discovered more appropriate and user-friendly sources of information.

Costs

The total cost of linking up the five schools is given below:

5 CAT Modems	$1,375.
5 TNW Interfaces	$1,875.
1 Subscription to the Source	$ 100.

This cost does not include -

(a) The disk drive which had to be purchased for those schools without one. (In this project, this cost $5,600.).

(b) The cost of printers to provide hard print copy. (In this project there was no cost, since each school already had a printer).

(c) The installation of five separate business lines.

(d) The monthly long distance and on-line charges. (In this project, this was approximately $18.00 per month per school). This would have been much higher if the process of getting data from distant sources had been more satisfactory.

Contact Person

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DEVELOPING A TEACHER'S MANUAL FOR INTRODUCING MICRO-COMPUTERS

(Mr. David Barnes - Shilo School District #2316)

Goal of the Project

The goal of the project was to develop a teacher's manual which would:

(a) Introduce students to the use of the micro-computer.

(b) Allow students to develop introductory computer skills.

(The manual entitled PROGRAMMING THE PET, is very elementary, and is intended for those teachers who have little or no background in micro-computers.

Outline of the Project

1. It was agreed that the manual would be written in such a way that it could be used by teachers with little or no background in computers.

2. The program was set up so that it could be used for a variety of purposes:

   (a) For enrichment materials for students at the junior high level.

   (b) For use with computer clubs or computer camps at the junior high level.

3. The program is being field tested with a number of students from grades 7 - 10. Based on this feedback, revisions will be made in the manual.

4. Once the revisions have been made, copies of the manual will be reproduced. They will be available to teachers through the Program Development and Support Services section of the Manitoba Department of Education by January of 1984.

5. If this manual proves to be successful, a similar manual may be developed for Apple and Radio Shack computers.

Costs

The cost for the teacher's manual (entitled PROGRAMMING THE PET) will be minimal. Copies can be obtained by writing to:

Program Development and Support Services
Room 311
1181 Portage Avenue
Winnipeg, Manitoba
R3G 0T3

Contact Person

For further information, contact:

Mr. Ed. Bulier
Director
Curriculum Development and Implementation Branch
Room 409
1181 Portage Avenue
Winnipeg, Manitoba
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IMPROVING PROGRAMMING FOR A MULTI-HANDICAPPED STUDENT

(Pembina Valley School Division #27)

Goal of the Project

The goal of the project was to try out a method of program delivery which would improve the quality of education received by a multi-handicapped student in a small school.

Outline of the Project

BACKGROUND

1. The student is a ten year old male with a variety of problems. His condition was diagnosed as hydrocephalia (which was controlled by means of a shunt), and epilepsy (which was controlled by medication). He is spastic in all four limbs, with particular difficulties with his legs and left arm. As a result, he walks with the assistance of a cane, and has extreme difficulty with tasks requiring two hands. His potential in both the fine and gross motor skills area is considerably less than that of his peers.

2. The school division has employed a teacher aide to assist him and his teachers since he entered the school system in February, 1979. Under the direction of both a physiotherapist and an occupational therapist, the school system has been involved in helping him with his physical development, (coordination, movement and use of his limbs). During this time, he has progressed from a wheel chair to a four-legged walker to a single shaft cane. At the present time, he is able to take a few steps independently. The school also worked on improving development in the academic area.

3. In May, 1982, the division began to consider ways to develop the student's ability to write. Since he was physically unable to write, the school began teaching him to use an electric typewriter equipped with a special guard. This experience encouraged the division to consider the use of a computer. They thought that this might eventually allow him to communicate in print with his teachers, peers and family.

4. A proposal for a pilot project which would allow his home school to deliver him a better quality of education was approved for the 1982-83 school year. The specific objectives of the program were:
   (a) to increase the student's Visual Motor Integration. (V.M.I.),
   (b) to develop basic Language Arts skills,
   (c) to develop basic Mathematics skills.

5. Because of the time needed to purchase some of the specialized equipment needed, the pilot project did not begin until January of 1983.

THE PROJECT

1. A major requirement for the project was the purchase and use of the appropriate material resources.

   (a) Hardware - The equipment used for the project was an Apple II Plus computer, a color monitor, a printer and a keyboard guard. This equipment was made available for use in regular classroom programs when not being used by the student.

   (b) Visual Motor Integration Software - It was felt that developing the student's visual motor integration was an essential skill for reading, since it is related to meaningful analysis of letters and words, as well as cognitive growth and development. Up to this point, the student had recognized only what he had learned by auditory rote. As a result, he had no meaningful organizing, classifying framework upon which to build. It was felt that this would be essential in order that he be able to compare new information against information that he had already attained.

   The software used to improve the student's V.M.I. was a computer program developed for this purpose by Dr. Seymour Papert of the Massachusetts Institute of Technology.

   (c) Language Arts Software - The software for the student's Language Arts program was developed jointly between the Pembina Valley and Portage la Prairie School Divisions.

   (d) Mathematics - The software for this part of the project was purchased from M.E.C.C. (the Minnesota Education Computer Consortium).

   (e) Human Resources - An essential part of the project was the use of a full-time teacher aide, paid for through a grant from the Child Care and Development Branch. The aide was well trained, and had the necessary personal attributes for the job.

Observations

1. Since the academic phase of the project has only been in operation for six months, it is too early to gather any hard data on growth in academic skills. However, subjectively it appears that important steps have been made. For example:

   (a) The LOGO program has helped to develop the student's visual motor integration.

   (b) The printer attached to the computer has helped the student to develop basic written communication skills.

2. As the student improves his visual motor integration, more emphasis will be placed on developing his academic skills.

3. Although the computer software programs appear to be working, they must be correlated with work in Mathematics and Language Arts which are delivered in ways other than through the computer.

4. It will be necessary to continue having a full-time aide work with the student.

Costs

(a) Material Resources

The main material resources required by the student were the Apple II Plus computer, a color monitor, a printer and a keyboard guard. The cost of these materials was just under $5000, but represented a one-time purchase, which is available to other students in the school when not being used by the student.

The cost of the computer software was about $300.

(b) Human Resources

The full-time aide who worked with the student was paid for by a grant from the Child Care and Development Branch of the Department of Education.

The tuition fee for the training which she received on operating the V.M.I. software was $330.

Contact People

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ESTABLISHING A MULTI-MEDIA RESOURCE CENTRE IN A SMALL SCHOOL

(Sifton School - Dauphin-Ochre School Area #1)

Goal of the Project

The goal of the project was to determine the feasibility of establishing and operating a multi-media resource centre in a small school.

Outline of the Project

1. The Media Services Branch of the Department of Education acted in an advisory capacity to the project. The role of the Branch was threefold:

   (a) To advise the school division and staff on the physical changes required to convert an empty classroom into a resource centre.

   (b) To advise the staff on operational procedures in setting up and running a multi-media resource centre.

   (c) To identify good sources of print and non-print materials.

2. In consultation with the Media Services Branch, certain changes were made to the room. Among these changes were:

   (a) Florescent lights were installed.

   (b) The walls were painted.

   (c) The centre was partially carpeted.

3. Appropriate library furniture was installed. This included carrels, round tables, book storage units and display units.

4. A number of print and non-print materials were purchased for the centre.

5. A part-time library aide was hired in order to organize the contents of the centre. Her main duties were to catalogue, classify and process the centre's materials.

6. The fully developed multi-media resource centre will be operational for the 1983-84 school year.

Observations

1. Because the resource centre will not be fully functional until the fall term of 1983, there has been no opportunity to evaluate its effectiveness. However, it would seem that the following benefits would result from such a centre.

   (a) Students will have access to a much wider range of print and non-print materials. Traditionally, students in smaller schools have not had access to the range of materials that students in larger schools have.

   (b) An up-to-date multi-media resource centre can serve as a valuable teaching station and student work area.

   (c) In a school with declining enrolment, a well developed resource centre represents good use of an empty classroom.

   (d) A good resource centre has potential for use by the community.

Costs

1. Overall, the cost to convert the empty classroom to an up-to-date multi-media centre was approximately $14,000.

   The costs involved in the project were:

(a) Print and non-print materials	$3000
(b) Payment to paraprofessional to organize and catalogue materials	$1000
(c) Furniture costs	$5000
(d) Renovation of room (e.g., painting, lighting, carpet)	$5000

   The project was cost shared between the school division and the Small Schools Support Program.

2. The following points should be noted about the costs:

   (a) The major costs (furniture and renovation) could vary, depending upon the amount of furniture needed to update the room, as well as the amount of work needed to renovate the room.

   (b) If a small school wished to develop such a centre, a large portion of the initial costs could be covered by their Small Schools Support Program grant. (e.g., Books, audio-visual aids).

   (c) Other sources of funds could be considered for the other costs of the project. (e.g., Capital grants, government employment projects, etc.).

   (d) The ongoing costs of such a project could be taken from the school's Small School Support Program grant. (e.g., Library aide, additional print and non-print materials).

Contact People

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ENRICHING SCHOOL PROGRAMS THROUGH INTER-DISCIPLINARY TEACHING

(Lac du Bonnet Senior School - Agassiz School Division #13)

Goals of the Project

The goals of the project were:

1. To enrich school programs in small schools through inter-disciplinary teaching around a common theme.
2. To stimulate an atmosphere of cooperation among students, teachers and the community.

Outline of the Project

1. The idea of using inter-disciplinary teaching around a common theme to enrich school programs was discussed with the staff and students. Since both groups were quite enthusiastic, a decision was made to proceed.
2. Two general themes were proposed. They were:
   (a) Life and life styles during the time of confederation.
   (b) Life and life styles during the 1920's and 1930's.
3. In the early stages of the project, it was decided to involve the community as much as possible. Two reasons for this were:
   (a) The community would be a valuable source of information and resources for the project.
   (b) It would increase community involvement in the school.
4. Over the next few weeks, the following decisions were made:
   (a) The project would take place during the second semester.
   (b) Each program area would highlight this particular theme as much as possible in their course of studies.
   (c) Subject area teachers would consider ways in which the community could contribute to the study of this theme.
   (d) The project would cumulate with a presentation to the community. This presentation would be held on one afternoon and two evenings during May.

5. Given below is a summary of some of the major undertakings in different subject areas, all of which were featured at the community presentation.

A. LANGUAGE ARTS - Teachers placed particular emphasis on writers and written work from this era. A major event for the Language Arts program was the production of a play dealing with this time in western Canada. The play was enriched by means of an audio-visual presentation and a local singer. The play was written and produced by the staff and students of the school, with some consultation from local members of the community.

B. HISTORY - The Canadian and American history courses gave strong emphasis to this period of time. Although attention was given to events throughout North America, particular emphasis was given to happenings in Manitoba, and the Lac du Bonnet area. The end product of this study was a series of student produced history displays. The displays highlighted industry, politics, sports, music, transportation, agriculture and famous people from this era.

C. MUSIC - During the semester, major emphasis was placed on learning to play musical pieces from the 1920's and 1930's. During the community presentation in May, a concert was held which featured this music. Selections were played by the Grade 7 and 8 band, the Grade 8 stage band, the high school band, as well as a Dixieland Combo which had been formed during the course of the semester.

D. BUSINESS EDUCATION - The Business Education section of the school did a major study of the economic situation during these years. During the course of this study, students did research at the Archives Building and the Winnipeg Public Library. The end product was a series of displays on economics, wages, prices, commodities and the Stock Market Crash.

E. HOME ECONOMICS - A number of crafts popular at this time were taught by the Home Economics teacher. (e.g., Quilting, tatting, weaving and rug making). As well as displaying this work, the Home Economics class operated a 1920's style cafe at the presentations in May.

F. FRENCH - Working in conjunction with students and interested members of the community, the French teacher and the librarian produced an extensive artifacts display. The display included exhibits from the 1920's and 1930's, which were borrowed from the St. George Museum, the St. Boniface Museum and individuals in the community. All labelling and explanations of artifacts were in French.

G. NICKELODEON THEATRE - A staff member and a group of students worked together to set up a nickelodeon theatre. Movies from this era were rented, and shown free-of-charge.

H. NEWSPAPER - A community newspaper from the time was developed and published by the local printer.

I. STUDENT COUNCIL - All advertising, photography and pictorial record keeping was done by the Student Council Yearbook Committee.

Observations

1. The project's first goal (program enrichment) was obviously achieved. Most of the activities undertaken did a lot to enrich the basic programs being taught in the school. For example -

   (a) Writing and producing a play not only gave students a greater insight into this era, but also gave them a greater understanding of the processes involved in play production.

   (b) Learning to play pieces from the 1920's and 1930's did a great deal to enrich the Music program. Playing these pieces gave students a sense of the type of music which the older people in their community had enjoyed in their youth.

   (c) Producing crafts from another era enriched the Home Economics program significantly. This type of activity was more meaningful than reading about these crafts in a textbook.

   (d) Gathering data about the local community from the Archives Building or from local sources was an important way to improve students' research skills, as well as to enrich the program being studied.

2. The project's second goal (to stimulate an atmosphere of cooperation among students, teachers and the community) was also achieved. Because of the consultation and joint planning involved, a greater sense of cooperation developed. This not only developed between the groups, (e.g., teachers and students), but within the groups as well (e.g., between different teachers).

3. It is interesting to note that, although funding will not be available from the Department for such a project next year, the staff hope to carry out a similar project during the 1983-84 school year.

Costs

The overall cost of the project was about $2,000. Although this may seem rather high, many of the expenses incurred would also have been present if the programs had been delivered in the usual way. (e.g., Costumes for plays, field trips, materials for Home Economics projects).

Contact Person

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PROVIDING A COMMUNITY SCHOOL SUPPORT ADVISORY COUNCIL

(Cartwright School - Turtle Mountain School Division #44)

Goal of the Project

The goal of the project was to encourage the establishment of a community school support advisory council.

Outline of the Project

1. A basic intent of the project was to involve a broad cross section of the general public in the work of the council. To this end, it was decided to set up the following committees:

   - Cultural Events and Opportunities
   - Sports and Recreation
   - Extension and Enrichment Programming
   - Community Support and Services
   - Public Relations
   - Ways and Means

Observations

1. The majority of the 1982-83 school year was spent in defining the role of the council, and establishing its relationship to other organizations within the school system. Actual committee plans are still emerging. However, it is anticipated that the 1983-84 school year will see definite activities by the council.

Costs

1. Four hundred dollars was allotted to this project. To date, very little of this money has been spent, since most of the work has been done on a volunteer basis.

Contact Person

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ENRICHING A VISUAL ARTS PROGRAM

(Pelly Trail School Division #37)

Goals of the Project

The two goals of the project were:

1. To provide students in small schools with specialized instruction in the visual arts.

2. To provide interested teachers and adults in the division with an opportunity to acquire additional knowledge in Art.

Outline of the Project

1. A professional artist was hired to provide the instruction to students and adults in the division.

2. It was decided that, if possible, all elementary students in the division would receive instruction. (This was carried out except for two schools. In one, it was only possible to provide for students in Grades 4,5 and 6, while in another school the Kindergarten students were not involved).

3. The program was set up so that each student would receive two classes, each lasting for an hour and a half. There would be a two-week break between classes.

4. The classes provided for:

   (a) a brief history of Art;
   (b) discussion of Art and Art forms;
   (c) a look at the work of some individuals, with emphasis on Manitoba artists;
   (d) basic instruction in drawing profiles;
   (e) basic instruction in collage;
   (f) hands-on activity by students in profile drawing and collage.

5. An inservice component was built in by:

   (a) Encouraging teachers to go through the instruction sessions with their students.

   (b) Providing an evening inservice for interested teachers and adults.

6. The sessions were carried out in each of the six elementary schools in the division during the month of May.

Observations

1. Although the amount of time spent with each student was quite limited, overall the project was successful. Some of the positive spin-offs from the project were:

   (a) Art was dealt with as more than a filler in a school curriculum. Art was discussed as a major field of study, as well as a possible career.

   (b) Students became more aware of the extent of work being done by Manitoba artists.

   (c) Although the amount of time was brief, students and teachers received top level instruction from a professional artist.

Costs

1. The overall cost for the project was $2,500. This included twelve days' salary for the artist, as well as related costs for travel, motel and meals.

2. Approximately 775 students in six different elementary schools received instruction through the project.

Contact Person

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PROVIDING ENRICHMENT FOR PRE-SCHOOL CHILDREN

(Norway House - Frontier School Division #48)

Goals of the Project

The goals of the project were:

1. To provide information and practical experiences for parents with pre-school children, for the purpose of enriching the child's environment, and consequently improving readiness for school entrance.

2. To deliver an enrichment program within a school setting for pre-nursery aged children.

3. To provide senior high school students enrolled in the Child Development Course with a practical experience in pre-school education and child development. (Hopefully, this will also increase their abilities as future parents).

Outline of the Project

A. Home Enrichment Program

1. Two individuals were named to act as home-school coordinators for the program. They were adults from the community, who received assistance from the school staff. (The Home Economics Course teacher and the Child Development Course teacher).

2. The Native Education Branch of the Department of Education assisted in providing assistance to the home-school coordinators.

3. Thirty different home enrichment kits were prepared. These kits contained toys, materials to improve hand-eye coordination and recreational toys.

4. The home-school coordinators and the instructors held community meetings in June and July. Homes were canvassed in July and August. The purpose of these were threefold -

   (a) To talk to parents about child development.

   (b) To distribute the kits, and explain their use.

   (c) To talk to parents about the school program for pre-nursery school aged children which was scheduled to begin in the fall term.

B. School Program for Pre-Nursery School Aged Children

1. Plans were made to operate a school program in the 1983-83 school year for 2-4 year old children.

2. The following decisions were made about this program:

   (a) It would be operated by a teacher with expertise in the field, and a teacher aide.

   (b) It would operate out of the collegiate. This would facilitate the involvement of the Home Economics teacher, the Child Development Course teacher and the young mothers attending high school.

   (c) Children would attend the program from 1:00 - 3:00 P.M. each school day.

   (d) The two main thrusts of the program would be to provide intellectual stimulation and to encourage development of the English Language.

3. Parents were allowed to sign their children up following the summer meetings. Enrolment was limited to 3 four year olds, plus 15 two and three year olds. On September 1st, all spots had been filled, with 30 names on the waiting list.

C. Child Development Course Practicum

1. The Program Development Section of the Department of Education assisted the school in modifying the Child Development Course to allow students to become involved with the pre-nursery school children. This component began in September, 1983.

2. This component of the course will involve -

   (a) Having the students observe the children, and then discuss in class what they observed.

   (b) Having the students do some work with the children.

   (c) Having the students operate the home enrichment kit program.

3. Twelve high school students are enrolled in this course.

Observations

At the present time, it is too early to comment on the effectivness of the project. However, it will be monitored and evaluated during the 1983-84 school year.

Costs

The projected cost of the project is:

Material Resources

- Home enrichment kits	$ 750.00
- Educational and stimulative toys for the in-school program	1,400.00
- Language development books and materials	800.00
- Child development aide	2,000.00
- Inservice travel and accommodation	850.00
- Other expenses (e.g., home visits, additional materials	1,200.00
Total Cost	$7,000.00

Contact Person

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